

Appl. No. 09/275,722

Attorney Docket: 042390. P6526

REMARKS

The above referenced patent application has been reviewed in light of the Office Action, dated January 27, 2005, in which:

- claims 11, 13-15, and 17-27 are rejected under 35 U.S.C. § 102(e) on Lotspiech *et al.* (hereinafter 'Lotspiech;' U.S. Patent No. 6,118,873);
- and claims 1-10, 12, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lotspiech in combination with Luther (U.S. Patent No. 5,533,127).

Reconsideration of the above referenced patent application in view of the foregoing amendments and the following remarks is respectfully requested.

A Petition for Extension of Time in order to extend the period for response 1 month(s), including the appropriate fee, is filed herewith.

A Request for Continued Examination is filed pursuant to 37 C.F.R. 1.114.

Claims 1-27 are now pending the above referenced patent application. No claims have been cancelled, or added. Claims 1, 11, and 16 have been amended. These claims have been amended back to their original intent, and, therefore, the amendments do not result in prosecution history estoppel and do not alter the scope of the claims as originally intended. No new matter has been entered.

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1. 35 U.S.C. § 102(b)

1.1. *Lotspiech: Claims 11, 13-15, and 17-27*

The PTO has rejected claims 11, 13-15, and 17-27 under 35 U.S.C. § 102(b) as being anticipated by Lotspiech. This rejection by the PTO of these claims is respectfully traversed.

It is well-established that in order to establish a *prima facie* case of anticipation under § 102 of the patent statute, the PTO must provide a single prior art document that alone has every element and every limitation of the claim being rejected. Therefore, if even a single element or limitation is not met by the asserted document, then the PTO has not succeeded in establishing a *prima facie* case.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants begin with claim 11. Claim 11, as amended, recites:

1 (Currently Amended) 11. A method comprising:
 2 providing a key matrix having N rows and M columns of matrix keys, where
 3 $N \geq 2$ and $M \geq 2$;
 4 for each row of the key matrix, performing arithmetic operations utilizing matrix
 5 keys of at least two selected columns of the key matrix to produce a secret device key
 6 which is part of a first set of secret device keys;
 7 producing a shared secret key based on arithmetic operations on selected secret
 8 device keys of the first set of secret device keys.

It is respectfully asserted that, as just one example of how the text cited by the PTO fails to meet the language of the rejected claims, Lotspiech does not show, teach, use, or describe utilizing matrix keys of at least two selected columns of the key matrix to produce a secret

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device key. The PTO states that Lotspiech shows this feature on Column 5, lines 55-68, but Applicant respectfully asserts that Lotspiech does not show this.

Lotspiech, in Column 5, lines 55-68, describes the creation of the matrix illustrated by Lotspiech Fig. 5. An important thing to notice from Fig. 5 is that the elements (e.g. $E(x_1, s_{1,1})$) consist of results derived **not from at least two columns** of what the PTO contends is Lotspiech's key matrix (Fig. 3), but **one element of the key matrix**, $s_{1,1}$, and a session number, x_1 . See, Col. 5, line 60. It is respectfully asserted that if at least two columns were used the elements of Fig. 5 would consist of results derived from functions that require multiple key matrix elements as inputs, such as, for example, $E(x_1, s_{1,1}, s_{1,2})$. In contrast, Applicant's Fig. 5 illustrates taking multiple columns (three in the case of Fig 5) from the key matrix and using them to produce a secret device key, such as, for example, $2_SDKEY1 = K_{11} + K_{13} + K_{14}$, which is part of a first set of secret device keys. Therefore, it is respectfully asserted that Lotspiech fails to satisfy a *prima facie* case of anticipation as directed by 35 U.S.C. § 102.

Claims 13-15 and 17-27 either depend from claim 11, or include a substantially similar and patentably distinct limitation as claim 11. It is, therefore, respectfully requested that the rejection of these claims also be withdrawn.

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2. 35 U.S.C. § 103(a)**2.1. *Lotspiech and Luther: Claims 1-10, 12, and 16***

The PTO has also rejected claims 1-10, 12, and 16 under 35 U.S.C. § 103(a) based upon *Lotspiech* in combination with *Luther*. The rejection of these claims is respectfully traversed.

M.P.E.P. § 706.02(j) sets forth the standard for a § 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (whitespace added).

Applicant begins with claim 1. Claim 1, as amended, recites:

1 (Currently Amended) 1. A method comprising:
 2 providing a key matrix having N rows and M columns of matrix keys, where $N \geq 2$ and
 3 $M \geq 2$;
 4 dedicating the rows of the key matrix to a first classification;
 5 for each column of the key matrix, performing arithmetic operations utilizing matrix keys
 6 of at least two selected rows of the key matrix to produce a secret device key which is part of a
 7 first set of secret device keys;
 8 producing a shared secret key based on arithmetic operations on selected secret device
 9 keys of the first set of secret device keys.

Applicant respectfully asserts that the combination set forth by the PTO fails to meet the requirement for a *prima facie* case for a § 103(a) rejection for at least the following reasons.

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It is respectfully asserted that neither Lotspiech nor Luther, either alone or in combination, suggests or describes utilizing matrix keys of at least two selected rows of the key matrix to produce a secret device key. See discussion above. It is, therefore, respectfully requested that the rejection of this claim be withdrawn.

Claims 2-10, 12, and 16 either depend from and include the limitations of claim 1, or include a substantially similar and patentably distinct limitation as claim 1. Therefore, these claims patentably distinguish from the cited patents on the same basis as claim 1. It is, therefore, respectfully requested that the PTO withdraw the rejections of these claims.

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CONCLUSION

In view of the foregoing, it is respectfully asserted that all claims pending in this application, as amended, are in condition for allowance. If the Examiner has any questions, they are invited to contact the undersigned at 503-264-7002. Reconsideration of this patent application and early allowance of all claims is respectfully requested.

Respectfully submitted,



Justin B. Scout
Reg. No. 54,431

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c/o Blakely, Sokoloff, Taylor & Zafman, LLP
12400 Wilshire Blvd., Seventh Floor
Los Angeles, CA 90025-1026
(503) 264-0967